

WHAT IS CLAIMED IS:

1. A system for providing access to resources, comprising:

a first data center for providing a network service at a first geographic location, including:

a first file server for providing access to resources;

- 5 a first data storage unit including active resources configured for active use;

a second data center for providing the network service at a second geographic location, including:

a second file server for providing access to resources;

- 10 a second data storage unit including standby resources configured for standby use in the event that the active resources cannot be obtained from the first data storage unit;

a switching mechanism for providing communicative connectivity to the first file server, second file server, first data storage unit, and second data storage unit;

failure sensing logic for sensing a failure condition in at least one of the first and second data centers, and generating an output based thereon; and

an intelligent controller coupled to the switching mechanism for controlling the flow of data through the switching mechanism, and for coordinating fail over operations, based on the output of the failure sensing logic.

2. The system of claim 1, wherein the intelligent controller includes:

logic for coupling the first file server to the first data storage unit in the absence of a detected failure condition.

3. The system of claim 1, wherein the intelligent controller includes:

logic for coupling the first file server to the second data storage unit when a failure condition is detected pertaining to the first data storage unit.

4. The system of claim 1, wherein the first file server includes:

5 a plurality of active data movers for providing access to respective storage unit modules;

a plurality of standby data movers associated with respective active data movers; and

10 a control module for activating a standby data mover associated with at least one active data mover when a failure condition is detected in the at least one active data mover, as coordinated by the intelligent controller.

5. The system of claim 1, wherein the intelligent controller further includes:

15 logic for sensing a failure condition affecting the entirety of the first data center, and for coordinating the activation the second data center in response thereto.

6. The system of claim 1, wherein the first data storage unit further includes replication logic for transmitting changes made in the first data storage unit to the second data storage unit.

20 7. The system of claim 6, wherein the intelligent controller includes:

logic for coupling the first data storage unit to the second data storage unit to serve as a communication route for transmitting changes made in the first data storage unit to the second data storage unit.

25 8. The system of claim 7, wherein the first data center and the second data center are coupled to at least one user access device via a wide area network.

9. The system of claim 1, wherein the switching mechanism comprises a fiber-based fabric switch.

10. The system of claim 1, wherein the switching mechanism comprises a WAN-based fabric switch.

5 11. A method for providing access to resources using a system including first and second data centers for providing a network service at first and second geographic locations, respectively, wherein the first data center includes a first file server for providing access to resources, and a first data storage unit including active resources configured for active use, and wherein the second data center  
10 includes a second file server for providing access to resources, and a second data storage unit including standby resources configured for standby use in the event that the active resources cannot be obtained from the first data center, comprising the steps of:

15 routing communication between the first file server and the first data storage unit using a fabric switching mechanism;

determining whether a failure condition has occurred;

analyzing the failure condition, and determining, using an intelligent controller, whether the failure condition warrants re-routing communication through the fabric switching mechanism; and

20 re-routing communication through the fabric switching mechanism if the intelligent controller deems that this warranted.

12. The method of claim 11, wherein the step of re-routing includes coupling the first file server to the second data storage unit when a failure condition is detected pertaining to the first data storage unit.

25 13. The method of claim 11, wherein the first file server includes a plurality of active data movers for providing access to respective storage unit

modules, and a plurality of standby data movers associated with respective active data movers, and wherein the method further includes a step of activating a standby data mover associated with at least one active data mover when a failure condition is detected in the at least one active data mover.

5           14. The method of claim 11, further including a step of sensing a failure condition affecting the entirety of the first data center, and for activating the second data center in response thereto.

          15. The method of claim 11, further including a step of transmitting changes made in the first data storage unit to the second data storage unit.

10           16. The method of claim 15, wherein the step of transmitting include transmitting the changes via the switching mechanism.

          17. The method of claim 11, wherein the first data center and the second data center are coupled to at least one user access device via a wide area network.

15           18. The method of claim 11, wherein the switching mechanism comprises a fiber-based fabric switch.

          19. The method of claim 11, wherein the switching mechanism comprises a WAN-based fabric switch.

          20. A system for providing access to resources over a wide area network, comprising:

20           a first data center coupled to the wide area network for providing a network service at a first geographic location, including:

          a first file server for providing access to resources;

          a first data storage unit including active resources configured for active use;

a second data center coupled to the wide area network for providing the network service at a second geographic location, including:

a second file server for providing access to resources;

5 a second data storage unit including standby resources configured for standby use in the event that the active resources cannot be obtained from the first data center;

a fabric switching mechanism for providing communicative connectivity to the first server, second server, first data storage unit, and second data storage unit;

10 failure sensing logic for sensing a failure condition in at least one of the first and second data centers, and for generating an output based thereon; and

an intelligent controller, coupled to the wide area network, and also coupled to the switching mechanism for controlling the flow of data through the switching mechanism, and for coordinating fail over operations, based on the output of the failure sensing logic;

15 wherein the intelligent controller includes:

logic for coupling the first file server to the first data storage unit in the absence of a detected failure condition, and for coupling the first file server to the second data storage unit when a failure condition is detected pertaining to the first data storage unit.

20 21. A method for providing access to resources over a wide area network using a system including first and second data centers for providing a network service at first and second geographic locations, respectively, wherein the first data center includes a first file server for providing access to resources, and a first data storage unit including active resources configured for active use, and wherein  
25 the second data center includes a second file server for providing access to resources, and a second data storage unit including standby resources configured

for standby use in the event that the active resources cannot be obtained from the first data center, comprising the steps of:

routing communication between the first file server and the first data storage unit using a fabric switching mechanism;

5 determining whether a failure condition has occurred;

analyzing the failure condition, and determining, using an intelligent controller, whether the failure condition warrants re-routing communication within the system; and

10 re-routing communication through the switching mechanism if the intelligent controller deems this warranted,

wherein the step of re-routing includes coupling the first file server to the second data storage unit when a failure condition is detected pertaining to the first data storage unit.

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